Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

- 1-52. (canceled)
- 53. (new) A method for measuring blood oxygen saturation comprising: emitting light from at least one light source in a disposable sensor; detecting light, at a detector in said disposable sensor, from said light source

subsequent to being scattered by tissue;

reading the value of an encoder associated with said sensor;

providing calibrations for two types of patients;

selecting between said calibrations to choose a particular calibration using said value of said encoder in said selecting;

using said particular calibration for calculating oxygen saturation.

- 54. (new) The method of claim 53 wherein said two types of patients include adults and neonates.
- 55. (new) The method of claim 53 wherein said selecting steps utilize only a single encoder, said encoder being a resistor.
- 56. (new) The method of claim 53 wherein said encoder is a resistor in said sensor.
- 57. (new) The method of claim 56 wherein different resistor values are assigned to select different calibrations, said different calibrations corresponding to adult or neonate patients.
 - 58. (new) A method for measuring oxygen saturation comprising: emitting light from a disposable pulse oximeter sensor;

Appl. No. 10/698,962 Amdt. dated January 3, 2005 Reply to Office Action of September 1, 2004

detecting light from the light source, with a detector in said disposable pulse oximeter sensor, after scattering by tissue;

providing an encoding element;

providing an electrical indication of whether said sensor is an adult or neonate sensor; and

providing calibrations corresponding to a wavelength of said light, for use in calculating oxygen saturation in a patient.

- 59. (new) The method of claim 58 wherein said encoding element is a resistor, and multiple resistor values are assigned to select different calibrations.
 - 60. (new) A method for measuring blood oxygen saturation comprising: emitting light from at least one light source;

detecting light, at a detector, from said light source subsequent to being scattered by tissue, the light including an infrared light spectrum, said infrared spectrum having a range useful for measuring oxygen saturation in a patient with high saturation, the detected light also including a red light spectrum, said red light spectrum having a mean wavelength between 700 and 790 nanometers; and

limiting light signals received at the detector from the light source to no more than three spectra.

- 61. (new) The method of claim 60 further comprising:
 providing a red light spectrum having a mean wavelength less than 700
 nanometers.
 - 62. (new) The method of claim 60 further comprising: emitting light in said infrared light spectrum between 805 and 940 nm.
 - 63. (new) A method for measuring oxygen saturation comprising: emitting light from at least one light source; detecting light with at least one light detector after scattering by tissue;

66.

limiting light signals received at the detector from the light source to no more than three spectra, a first spectrum including 735 nanometers at an intensity of at least 50% of the intensity of any other wavelengths in said first spectrum.

- 64. (new) The method of claim 63 wherein a second spectrum has a mean wavelength of from 805 to 940 nm used, in conjunction with said first spectrum, for measuring oxygen saturation in a patient.
- 65. (new) The method of claim 63 in which a third spectrum has a mean wavelength near 660 nm.
- (new) A method for measuring oxygen saturation comprising: emitting light from at least one light source; detecting light from the light source with a detector after scattering by tissue; limiting light signals received at the detector to only first and second spectra, a first spectrum having a mean wavelength in the infrared range of from 805 to 940 nm used conventionally for measuring oxygen saturation in a patient with high blood saturation, and a second spectrum having a mean wavelength of from 700 to 790 nm used, in conjunction with said first spectrum, for measuring oxygen saturation in a patient.
- 67. (new) The method of claim 66 wherein said method is used for fetal sensing.
- 68. (new) The method of claim 66 wherein said second spectrum is used for calculating oxygen saturation for saturations below 80%.
- 69. (new) The method of claim 66 wherein said second spectrum is used for calculating oxygen saturation for saturations below 65%.